

Date: Monday, 11/21/2005 7:40:54 PM
 User: Linda Lacelle

Process Sheet

Split 1 *Jan 01-03*

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: FLOAT WEB
Job Number	: 24862		
Estimate Number	: 10791		
P.O. Number	: <i>NIA</i>	Part Number	: D3282041
This Issue	: 11/21/2005 S.O. No. : <i>NIA</i>	Drawing Number	: D3282 REV C
Prsht Rev.	: NC	Project Number	: <i>NIA</i>
First Issue	: <i>NIA</i> Type : MACHINED PARTS	Drawing Revision	: C
Previous Run	: <i>NIA</i>	Material	: <i>NIA</i>
Written By	: <i>SEE COMMENT BELOW</i>	Due Date	: 12/20/2005 Qty: 10 Um: Each
Checked & Approved By	: <i>SEE COMMENT BELOW</i>		
Comment	: Est Rev:B 05.09.23 Procedure change KJ/JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D2792130	EXTRUSION
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D2792-130

Extrusion

*B24030**Pm' 05-11-28*

Identify as D3282-1

2.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
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Comment: LANDING GEAR RESOURCE 1

Cut to length as per Dwg D3282.

Pm' 05-11-28

3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine as per Folio FA579 & Dwg D3282.

2-Deburr

*EP 05/12/03**11*

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

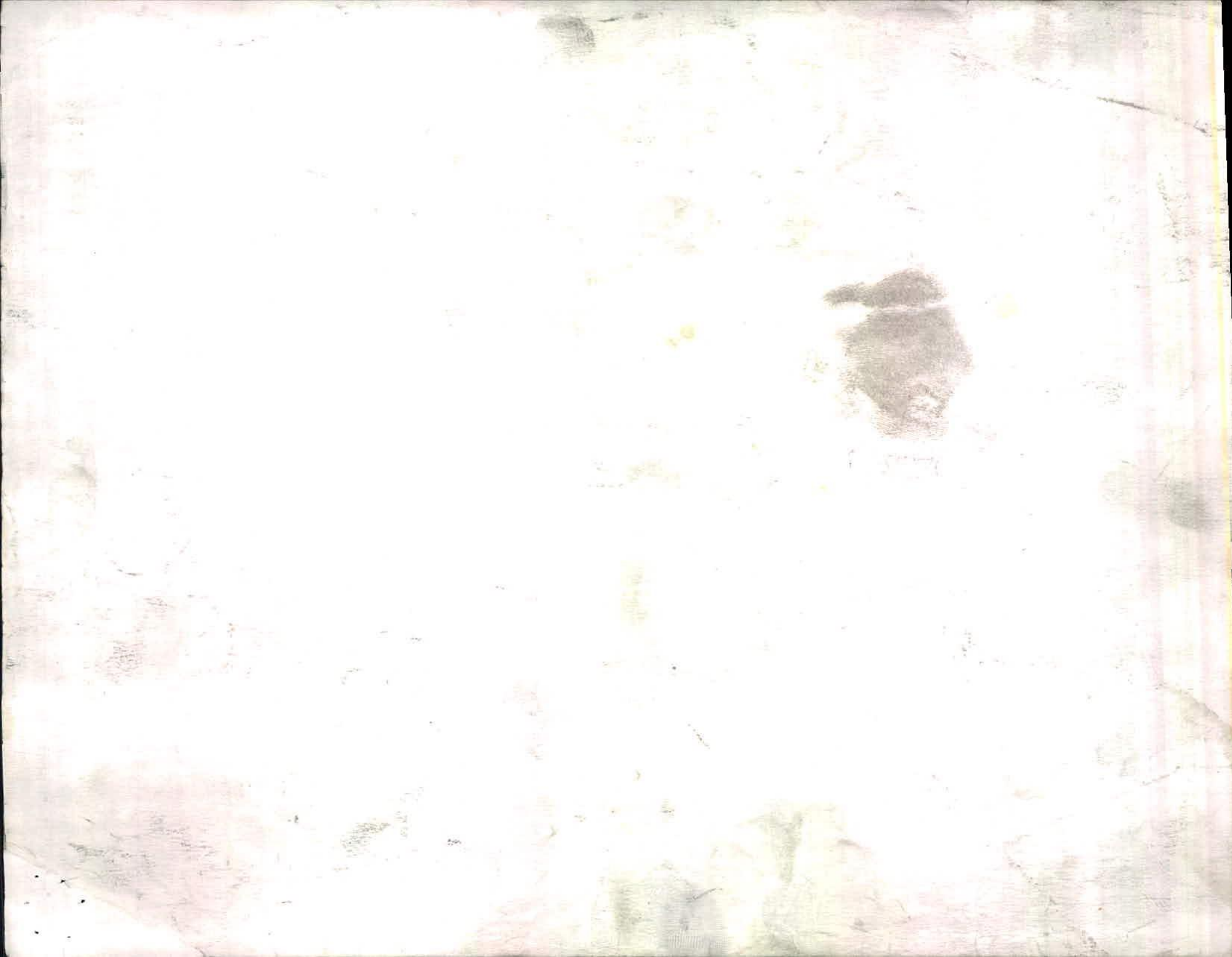
*EP 05/12/03**11*

PTD

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQA: ☒ Date: 06/01/25
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
05.12.12	3	0.050" Dimension in section A-A of dwg D3282 was cut to 0.014", on one side only, from mid flange holes through to aft taper. Transition is equal to tool radi.	CP 05.12.12 per QSI 042	PART IS OK See attached E-mail		CP 05.12.12	CP 05.12.12 per QSI 042	CP 05.12.12
05.12.14	3	webs not deburred properly especially the ends,	EP 05.12.14	Re-debur and ensure no burrs or sharp edges are left & re alodine AS per QSI 005 4.1	EP 05.12.15	EP 05.12.15	EP 05.12.14	EP 05.12.14



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 11/21/2005 7:40:54 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLOAT WEB

Job Number: 24862

Part Number: D3282041

Job Number:



Seq. #:

Machine Or Operation:

Description:

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

ml 05/12/12 11

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

Alm 05-12-13

7.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

DP 05-12-16

8.0

D32831

Doubler



Comment: Qty.: 2.0000 Each(s)/Unit Total: 20.0000 Each(s)

Pick:

Qty Part Number
2 D3283-1

Description
Doubler

Batch

B 25339

BE ~~25339~~ - 06-01-12

9.0

MS20470AD47

Rivet, Universal Head



Comment: Qty.: 57.0000 Each(s)/Unit Total: 570.0000 Each(s)

Pick:

Qty Part Number
57 MS20470AD4-7

Description
Rivet

Batch

M15924

BE 06-01-12 ①

10.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Install doublers as per Dwg D3282. Apply LPS-3 between doublers and web
A/RN/LPS-3 *M17395 BE 06-01-12*

11.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

06-01-16 ⑧

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 11/21/2006 7:40:54 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLOAT WEB

Job Number: 24862

Part Number: D3282041

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 26

9.m 06-01-24



13.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

5.m 06/01/25



DP 06/01/25

Job Completion



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Nov 17, 2005
03:30 pm

Work Order No	:	0024862-1	Department Code:	
Project Name	:	D3282-041	Burden Flags	: NNNNNNN
Project For	:	WK550	WO Status	: Open
Work Order Type	:	Main	Invoice State	: Not Invoiced
Main WO Number	:		Invoice Date	:
House Part Number	:	D3282-041	Invoice Number	:
Description	:	Float Web	Invoice Amount	: 0.00
Manufactured	:	Yes		
Amount Req'd	:	8103	Order Entry No	:
Amount Done	:	0	OE Value	: 0.00
Start Date	:	11-17-05		
Est Finish Date	:	12-20-05	Est Margin	: 0.000%
Act Finish Date	:		Actual Margin	: 0.000%
Drawings Req'd	:	No		
Ok for Approval	:			
Approval Rec'd	:			

\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost	0.00	0.00	0.00	0.00	0.00
Engineering Hours	0.00	0.00	0.00		
Engineering Cost	0.00	0.00	0.00	0.00	0.00
Production Hours	0.00	0.00	0.00		
Production Cost	0.00	0.00	0.00	0.00	0.00
Packaging Hours	0.00	0.00	0.00		
Packaging Cost	0.00	0.00	0.00	0.00	0.00
OverHead Hours	0.00	0.00	0.00		
OverHead Cost	0.00	0.00	0.00	0.00	0.00
CNC Hours	0.00	0.00	0.00		
CNC	0.00	0.00	0.00	0.00	0.00
Misc. Hours	0.00	0.00	0.00		
Misc.	0.00	0.00	0.00	0.00	0.00
Burden	0.00	0.00	0.00		
Total Cost	0.00	0.00	0.00		
Margin	0.000	0.000			
Selling Cost	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done	0.00	0.00
Profits/(Loss)	0.00	0.00

DART AEROSPACE LTD		Work Order: 24862
Description: Float WEB		Part Number: D3282-041
Inspection Dwg: D3282 Rev: C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☐ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
# 126.60	± 0.030	126.6	—		Tape measur	
118.25	"	118.25	—		"	
108.93	"	108.900	—		"	
72.01	"	72.00	—		"	
61.75	"	61.740	—		"	
57.50	"	57.500	—		"	
49.19	"	49.188	—		"	
43.94	"	43.938	—		"	
39.69	"	39.688	—		"	
26.68	"	26.688	✓		"	
18.000	± 0.010	18.000	—		"	
1.500	"	1.497	✓		Vern	
0.55	± 0.030	0.547	—		"	
3.000 (Pitch)	± 0.010	2.998	—		"	
2.500	"	2.496	—		"	
2.500	"	2.497	—		"	
30.000	"	30.000	—		Tape measur	
1.500	"	1.497	—		Vern	
3.000 (Pitch)	"	2.999	—		"	
6.000	"	5.997	—		"	
3.000	"	2.998	—		"	
1.500	"	1.499	—		"	
0.500 (39 PLACES)	± 0.004 -0.001	0.502	✓		"	

Measured by: EN	Audited by: BC	Prototype Approval:
Date: 05/11/30	Date: 05.11.30	Date:

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/RF	

Chris Provencal

From: David Shepherd [davids@dartaero.com]
Sent: December 7, 2005 4:56 PM
To: Chris Provencal
Subject: Re: web_transition1.jpg;web_transition2.jpg

Chris,

If the transition from 0.014" to 0.050" is the radius of the cutter, then I think this is an acceptable deviation.

David

----- Original Message -----

From: Chris Provencal
To: davids@dartaero.com
Sent: Monday, December 05, 2005 12:33 PM
Subject: web_transition1.jpg;web_transition2.jpg

David,

If you recall, a D3282 web was cut too deep. Basically the 0.050" relief from section A-A of drawing D3282 Rev. C was instead cut too 0.014" on one side only. My calculations show the inertia value (1.369) is still higher than the D2600-7 (1.318).

The reduced section is from the aft holes of the mid bag (section A-A), through the transition from section A-A to B-B.

The potential problem I see is that the transition is very pronounced (see attached pictures). This transition is at the point where the section jumps from 0.014" thickness to the 0.050", near the aft end of the mid bag holes.

Sincerely,

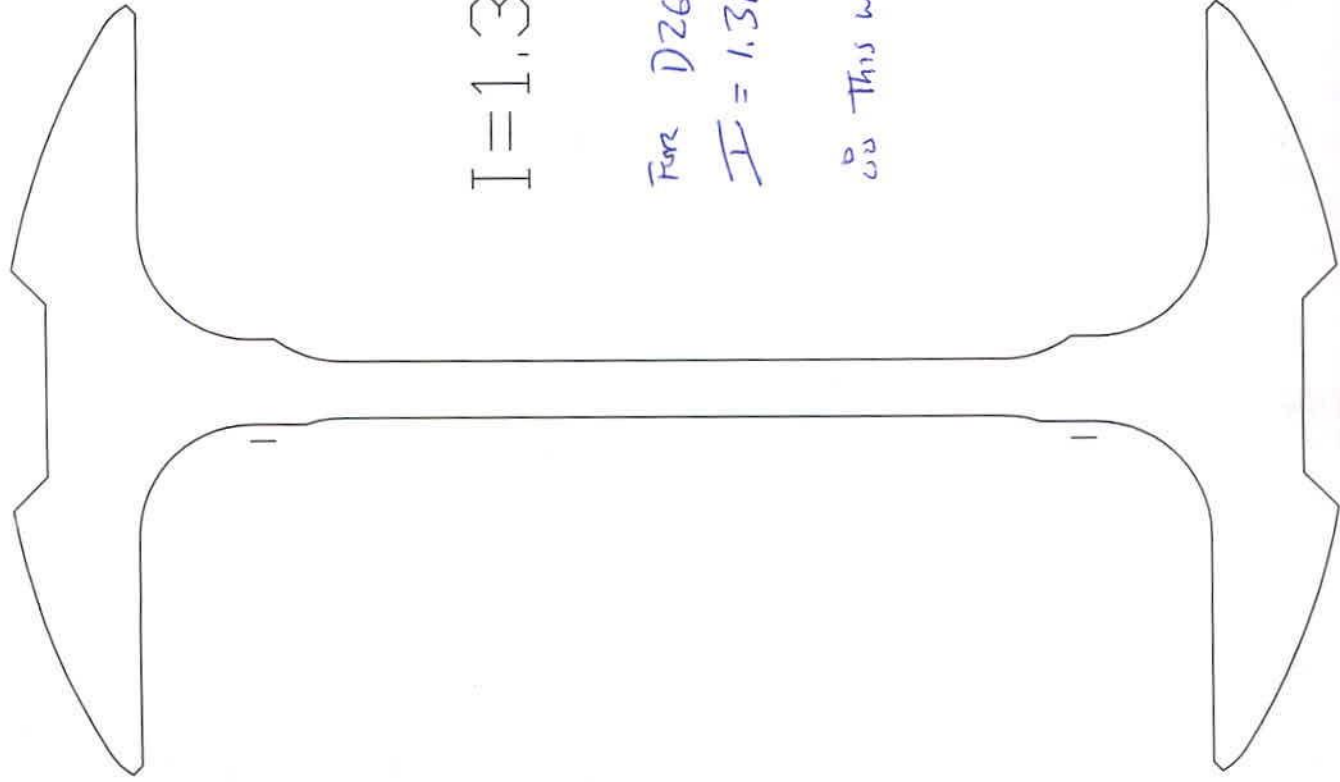
Chris Provencal

DART Aerospace Ltd.

Email...chrisp@dartaero.com

Phone...613-632-3336

Fax.....613-632-4443



$$I = 1,369 \text{ in}^4$$

For D2600-7

$$I = 1,318 \text{ in}^4$$

∴ This web still stronger

W_{05.12.12}

